

THE GRAZING BULLETIN

SEPTEMBER 1940



Pronghorn antelope racing with the speed of the wind across range land in Wyoming. Photo by Belden.



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Secretary of the Interior

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UNITED STATES
DEPARTMENT OF THE INTERIOR
GRAZING SERVICE

WASHINGTON, D. C.

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Alvin J. Wirtz, Under Secretary, in Charge of Grazing
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DEFENSE ON THE RANGE

Today every citizen of America is asking himself this question: "How can I best serve my country in the present crisis?" National defense is popularly viewed in terms of guns, planes, ships—and men to operate them. Few stop to think of what is back of our preparedness program. What are the factors that make the program possible?

The success of the whole effort will depend upon how we marshal and utilize our talents and our resources. Everything that comes from the soil, even the soil itself, and the minerals that lie beneath it, are vital elements in the task that lies ahead.

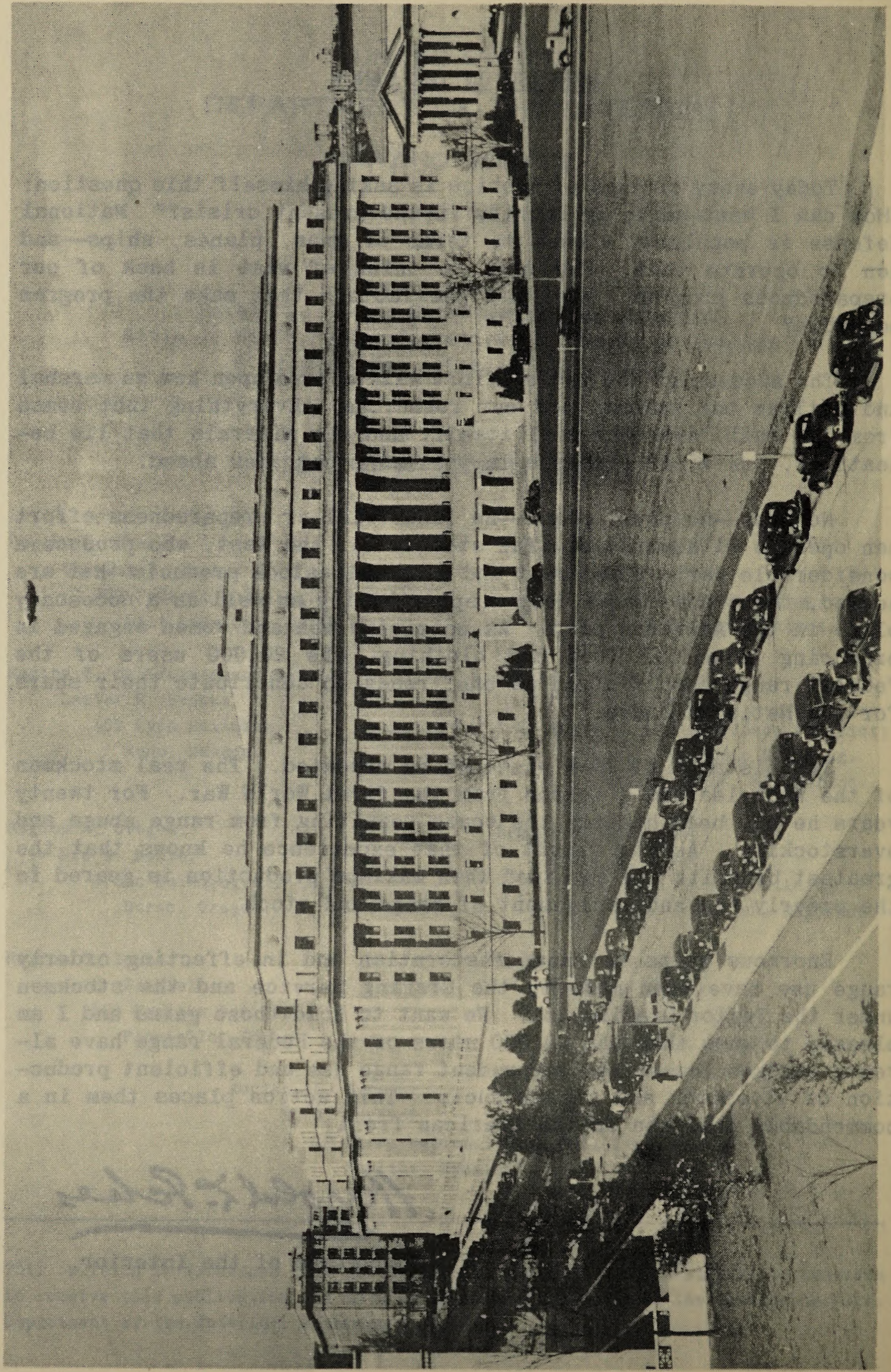
No army--no power plant--no industrial or preparedness effort can operate without food. The stockmen of the West, who produce a considerable part of the meat and other livestock products that are needed, therefore have a deep responsibility as well as a necessary place in the American plan. As patriotic men and women engaged in producing essential food and clothing, the 20,000 users of the Federal range should stand as one, ready to contribute their share for the National cause.

The mistakes of 1918 must not be repeated. The real stockman of the West learned a lesson from the first World War. For twenty years he has been healing the scars resulting from range abuse and overstocking. As the result of that experience he knows that the greatest benefits are obtained when maximum production is geared to the orderly use and management of range and stock.

Enormous gains in range restoration and in effecting orderly range use have been made by the Grazing Service and the stockmen under the Taylor Grazing Act. We want to hold those gains and I am pleased to know that the 20,000 users of the Federal range have already pledged themselves to prudent range use and efficient production of livestock and its products. This action places them in a commendable position on the American front.

Harold Z.acher

Secretary of the Interior.



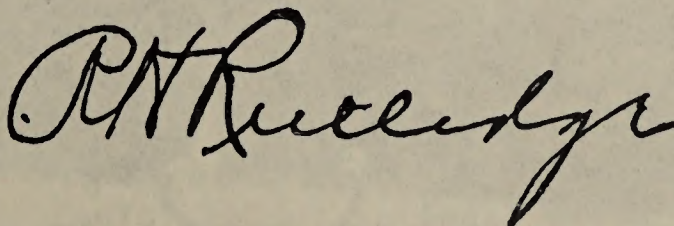
South Interior Building, Washington, D. C., wherein are housed offices of the Grazing Service and other bureaus of the Department of the Interior.

NATIONAL DEFENDERS IN BOOTS AND CHAPS

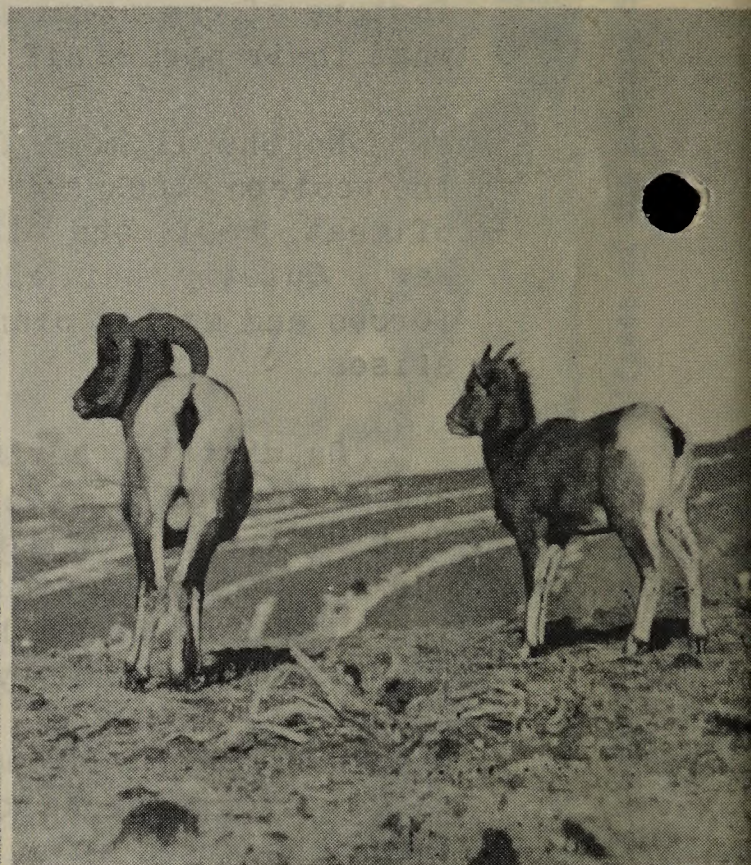
American citizens everywhere are concerned over the threat of war. They learn from the newspapers and over the radio that the industrial agencies throughout the country are being put in high gear for the manufacture of essential war materials. They are wondering what their part shall be if the threat becomes a reality.

No one is more fully aware of the situation than the western stockman. He knows the increased importance of meat, wool, and other livestock products in time of war. Quietly but effectively he is marshalling his forces and making plans to do his part if the necessity arises.

On district advisory boards he is working closely and efficiently with administrative officers of the Grazing Service in the improvement of the western ranges and development of practical plans for management of the livestock and the range. More recently he has organized an advisory council for quick and positive cooperative action. He is now in a better position than ever before properly to utilize the soil, forage, and water resources of the West, and to produce from these resources in an orderly fashion a full supply of livestock products. The western stockman is making every effort to be able to do his part to keep America safe--now, and in the future.

A handwritten signature in dark ink, appearing to read "R. W. Ruedger". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Director of Grazing.



Buffalo, moose, bear,
 mountain sheep, and deer
 are a few of the wild game
 animals found within the
 boundaries of Federal
 grazing districts.

GRAZING SERVICE COOPERATION IN THE
NATIONAL WILDLIFE CONSERVATION PROGRAM

Like the minerals deposited in the heart of the earth and the vegetation growing on its surface, the wildlife of our woods and plains and marshes is an important natural resource. Americans were slow to recognize this heritage, however, having first looked upon it as an inexhaustible source of supply for food and clothing. Our pioneer forefathers depended on wild game for the essentials of life. A few of them made fabulous fortunes in trapping for fur or killing for meat until many species declined alarmingly and others faced extinction. An example of the early exploitation of wild game is found in the case of the American bison, or buffalo. Less than a hundred years ago approximately 60,000,000 of these rugged animals roamed the great plains region, but they gave way to ruthless slaughtering and advancing civilization. However, through careful management and protection by conservation agencies and interested groups in recent years, existing herds have been brought up from almost nothing to over 4,000 head.

The era of wildlife exploitation, like the exploitation of other natural resources of our country, is rapidly drawing to an end. America at last realizes that there is no longer a superabundance of these resources and that what remains must be conserved. An increased determination on the part of Federal and State agencies, sportsmen, and the general public to prevent further unnecessary destruction of wildlife and to cooperate in the restoration of these creatures consistent with modern civilization and related resources has meant success in saving from extinction dwindling herds of buffalo, mountain sheep, and other vanishing species of bird and animal life.

The American public now looks upon the wild game and fowl inhabiting this country not only as a means for recreation but also as a crop to be harvested in keeping with supply and demand. Wildlife is an important economic factor in our national welfare. Its esthetic and recreational values are well known but few people realize that wildlife is worth millions of dollars annually to the people of the United States for meat, fur, and other products and for their destruction of insects, rodents, and other pests.

Grazing Service Participation

Each of the ten executive departments of the Federal Government participates in the Nation's wildlife conservation program and all cooperate with interested State and independent organizations. In this work the Grazing Service plays an important part.

Under the terms of the Taylor Grazing Act of June 28, 1934, the Secretary of the Interior is authorized to establish grazing districts on Federally owned lands in the United States which are chiefly valuable for grazing and raising forage crops and which are not included in national forests, national parks and monuments, Indian reservations, or other withdrawals.

Fifty-four grazing districts have been established to date. Located in ten western "public land" States, these districts embrace approximately 258,000,000 acres, nearly 133,500,000 of which is public domain administered by the Grazing Service under a broad conservation program which is designed to bring about the following primary objectives:

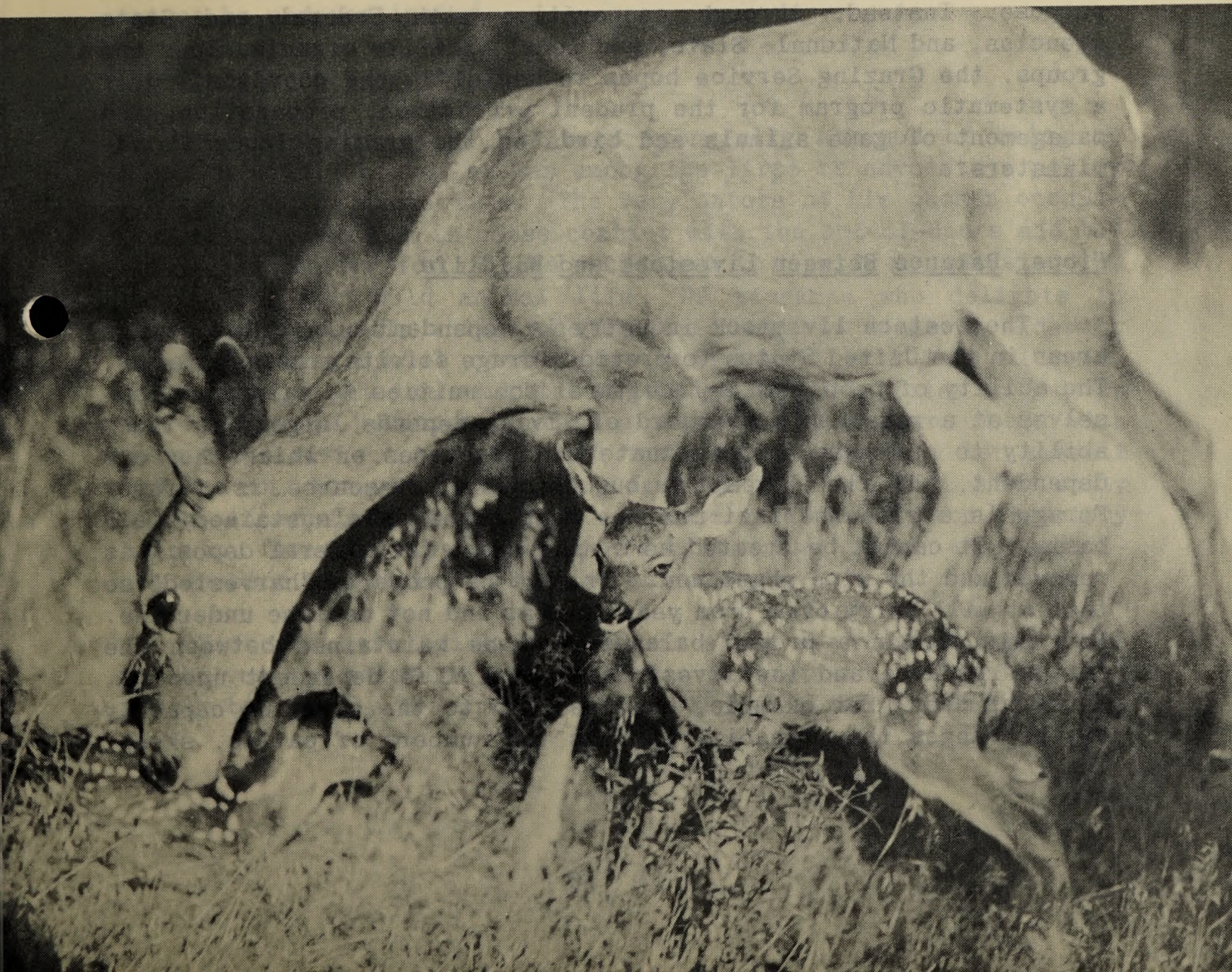
1. Preserve the land and its resources;
2. Provide for orderly use, improvement, and development of these lands;
3. Stabilize the livestock industry dependent upon these lands and resources.

Land is the primary tangible asset upon which constructive methods of wildlife management can be based and, since grazing districts embody many areas particularly adapted as a habitat for wild game and birds, the Taylor Grazing Act exerts an enduring influence on the formation of a national wildlife conservation and management program. Provision was made for the preservation of our natural wildlife resource in section 9 of this act which reads, in part, as follows: "The Secretary of the Interior shall provide, by suitable rules and regulations, for cooperation with local associations of stockmen, State land officials, and official State agencies engaged in conservation or propagation of wildlife interested in the use of the grazing districts...."

The expansion of the western livestock business during the last century naturally encroached upon certain areas formerly inhabited by big game. During settlement of the West, range lands suffered abuses due not only to competition within the livestock industry, but also to competition between livestock and wild game, and to other causes.

Secretary of the Interior Harold L. Ickes was quick to recognize the possibilities for the conservation and rehabilitation of wildlife inhabiting ranges within grazing districts under the terms of the Taylor Act. After the act became a law, representatives of Federal and State agencies, and independent organizations interested in wildlife management, were invited to meet with the Secretary of the Interior to formulate a plan for a balanced wildlife program in these districts. Full cooperation was pledged to the general wildlife conservation program consistent with the objectives of the Taylor Act. One outcome of this meeting was the inauguration of a plan in New Mexico whereby the game animals in that State should share in the range jointly with domestic livestock to an extent consistent with interests of both types of animals. The plan provided for the appointment by the Secretary of one district adviser on each grazing district advisory board to represent wildlife and recreation interests, this adviser to be nominated by the land-use committee of the New Mexico State Planning Board.

Range Areas Within Federal Grazing Districts Furnish the Natural Habitat Of Many Deer
Like the One Below Who Guards Her Spotted Twin Fawns.



Other "grazing" States soon followed New Mexico with similar plans. Rules covering wildlife conservation in all grazing districts now provide that in each district sufficient carrying capacity of Federal range will be reserved for the maintenance of a reasonable number of wild game animals to use the range in common with livestock grazing in the district. On each advisory board there is now a member to represent the wildlife factors in the locality who is nominated by the State Fish and Game Commission or corresponding authority in the State.

In addition to joint use of the ranges by game and domestic animals, there are today 63 wildlife ranges and refuges in the ten western States. The refuges are all under the management of the Fish and Wildlife Service of the Department of the Interior. Game ranges within Federal grazing district boundaries are administered jointly by the Fish and Wildlife Service and the Grazing Service. A list of these areas and their extent is included here.

Activities pertaining to wildlife management are a natural segment of the functions of the Grazing Service but no effort is being made to establish an organization within the Service for this purpose. Instead, through cooperation with Federal and State agencies, and National, State, and local wildlife organizations and groups, the Grazing Service hopes to assist in the coordination of a systematic program for the prudent protection, propagation, and management of game animals and birds on the grazing lands it administers.

Proper Balance Between Livestock and Wildlife

The western livestock industry is dependent upon public range areas in the United States to provide forage for its grazing animals. The ability of people in agricultural communities to maintain themselves at a reasonable standard of living depends largely on their ability to maintain or perpetuate the resources on which they are dependent. In the livestock business this resource is forage. Forage is a resource that must be maintained on a sustained-yield basis. It cannot be treated as a mine where the mineral deposit is removed and the mine abandoned. It must be properly "harvested" so that it will carry over from year to year and not decline under use. For this reason a proper balance must be maintained between the forage resource and the livestock and wildlife dependent upon it. Herds of deer, for example, must be held to the carrying capacity of the ranges they inhabit, just as the numbers of cattle, sheep,

horses, and goats must be limited in keeping with the forage available. Ranges vary with the seasons. Grazing by domestic livestock may be rotated from range to range in accordance with the proper season of use, or removed from the range entirely when grazing is detrimental to the forage growth. Game animals are not subject to such restrictions.

Leaving out of the picture, for a moment, the effects on the range of too many grazing game animals, there is still the danger to wildlife itself. When the animals get too numerous for the available forage supply they not only do permanent damage to the range but they decline in weights and measurements due to malnutrition. Proper management provided for the maintenance of game herds at a level which will produce an annual crop adequate to perpetuate the species but not one greater than needed from the sportsman's point of view.

Even the most ardent wildlife conservationists recognize that there must be maintained a proper balance between wildlife and livestock on public range areas. A stabilized livestock industry is an important factor in the economic structure of our Nation that cannot be underestimated.

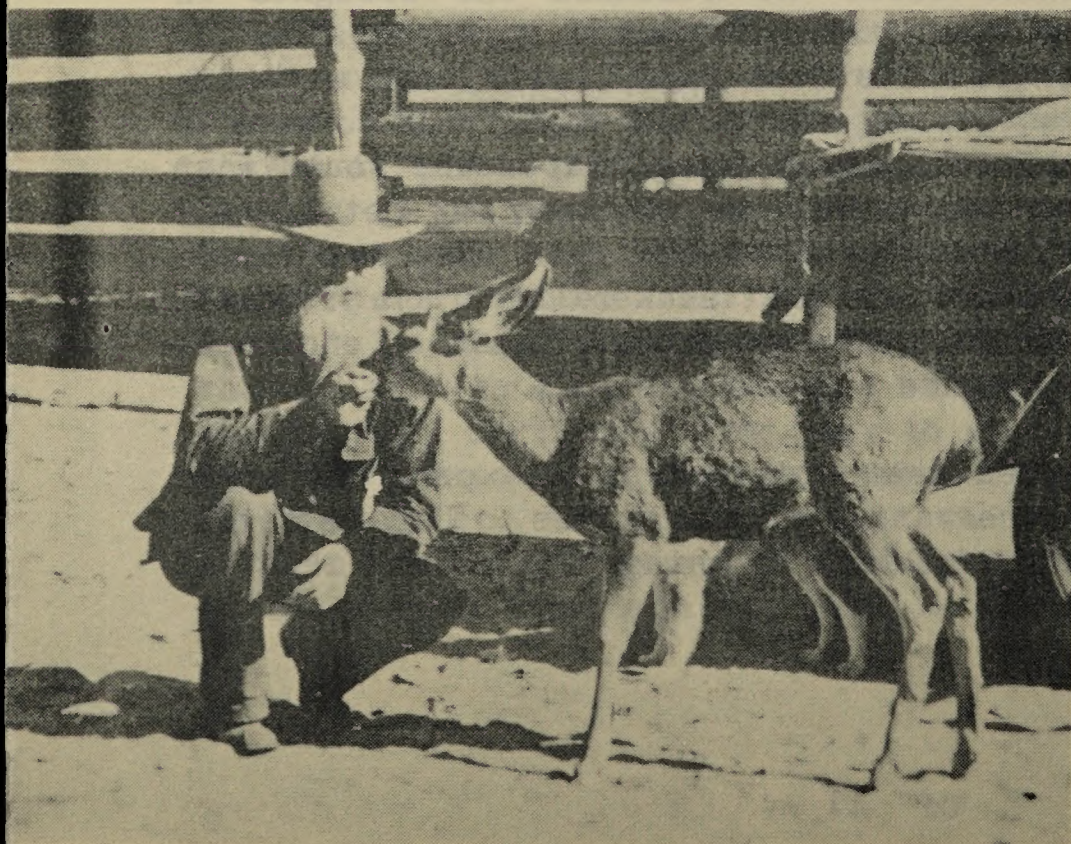
The Stockman's Cooperation

The stockman often has been wrongfully accused of being an enemy of wildlife, yet he was among the first to advocate a policy for its prudent protection. The very nature of his chosen occupation which keeps him in close contact with the out-of-doors and the raising and caring for animals would seem to signify an understanding and liking for wild animal life. No stockman who delights in watching the little white-face "hi-tail" to his mother's side, or helps the baby woolie control his "sea-legs," will look with indifference or antagonism on the big-eared fawn that tries to hide in the high grass. Many a hunter, discovering that fawn, would wish only for a rifle. Any sentiment that the stockman may let himself indulge in, however, must be colored by the fact that his family needs winter clothing and food. He must seek relief from predatory animals, forage-eating rodents, and what appear to him as encroaching numbers of grazing wild game animals.

Stockmen have evidenced keen interest in the programs under way by various wildlife conservation organizations. They feel that slowly but surely the proper balance is being reached and that the

solution to their problem is being found in practicable game management plans. That they are willing to do their part is indicated by their support of the following policies of the Department of the Interior:

1. Vigorous enforcement of all game laws within the respective grazing districts. (Field employees of the Grazing Service have been made eligible by Executive order to accept, without compensation, appointments as deputy game and fire wardens in the several public domain States.)
2. Practical means for redistribution of big game in the so-called critical big game areas to prevent starvation as a result of excess concentration.
3. Controlled hunting so that surplus wildlife may be soon removed in areas where the demand for forage exceeds the safe margin of supply.
4. Control of predatory animals.
5. Cooperation with all Federal and State agencies having activities relating to wildlife and land management within the respective States.
6. Development and replacement of all necessary natural watering places to be used by domestic stock and big game animals jointly where practicable and the development of protected watering places as nesting places for upland game birds.



N. J. Williams, member of the advisory board of Mojave Grazing District, California, with "Pete," a pet fawn. Pete later joined the wild herd of his kind on Pinto Mountain.

Stockmen are cooperating with State and Federal agencies in game counts which are being made in order that game management plans may be developed in grazing districts on a sound and lasting basis. They are assisting in a study of range conditions so that there may be a redistribution of big game in conformity with range conditions when necessary. Springs are being fenced with a view to providing a cover for sage hens, grouse, and other game birds. Stockmen who own ranches in the public domain area in many instances are allotting small patches of uncut hay along their meadows, ditch banks, and fence rows to give suitable cover to pheasants, sage hens, and other upland game birds. In certain areas antelope kidding grounds are being protected against encroachment of livestock during kidding season.

The stockman wants to allow a reasonable number of game animals to graze in common with his livestock. He makes no claim to the areas of public land that have been set aside for the propagation of wildlife. However, he knows that a proper balance must be maintained between these two types of animals if the industry he represents is to be stabilized.

Wildlife Activities of CCC Camps

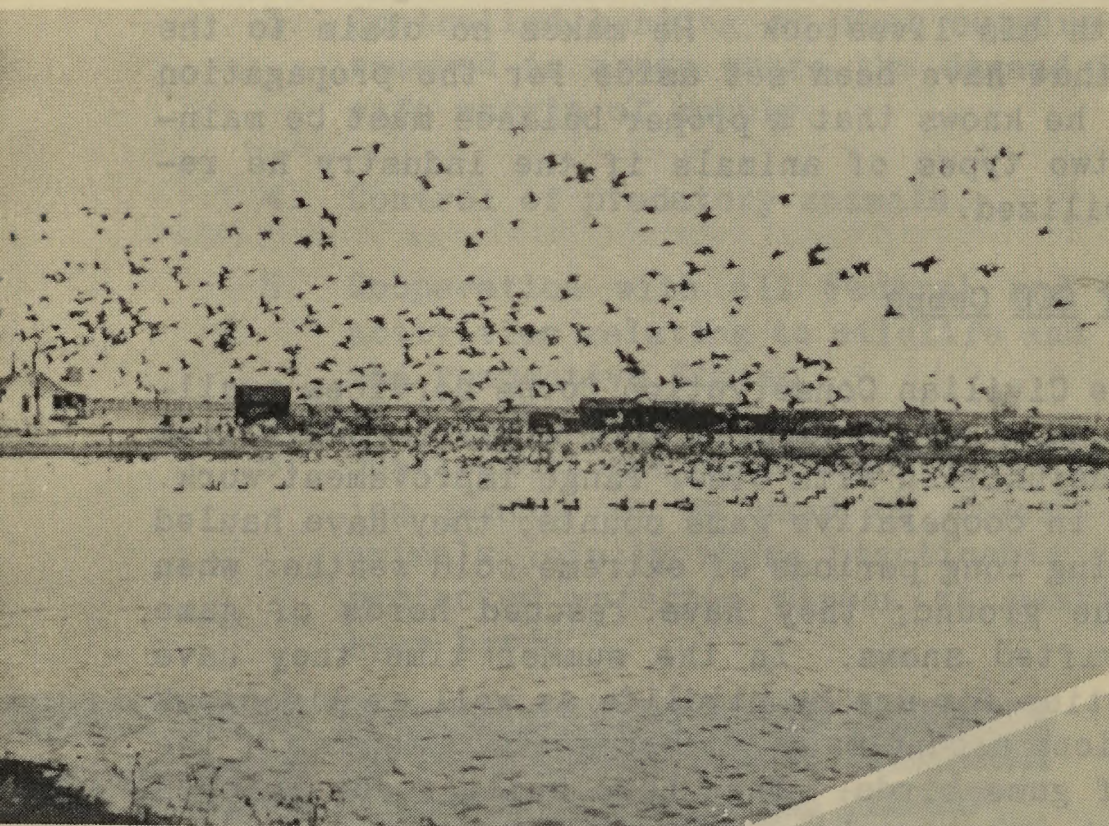
Utilization of the Civilian Conservation Corps services available to the Grazing Service in connection with wildlife activities has been afforded in conjunction with other range improvement work. CCC boys have assisted in cooperative game counts; they have hauled feed to game birds during long periods of extreme cold weather when deep snows were on the ground; they have rescued herds of game animals trapped by drifted snows. In the summer time they have developed water facilities for use by wildlife as well as livestock and have built protections around many of these developments for the nesting and feeding of game birds. They have built roads to open areas for grazing which may also be used by hunters and fishermen in season.

Beaver Projects

Enrollees in the Civilian Conservation Corps assigned to the Grazing Service have also had an opportunity to work on the somewhat unique project of beaver-planting. In 1937, the Idaho State Department of Fish and Game, in cooperation with the Grazing Service, Biological Survey, and the Forest Service, began the protection and propagation of beaver in Idaho streams in order that the dam-building instincts of these industrious workers might be utilized in selected areas to prevent soil erosion and provide water facilities for stock and forage crops. That year 173 beaver were

trapped and transported from irrigation canals, ditches, rivers, and streams where they were interfering, by their enthusiastic dam-building, with farm practices, or otherwise damaging private or public property, to areas where their dam-building would conserve water for irrigation and for domestic stock and wildlife use. The general result was beneficial to the range and stream conditions. In 1938, this work was increased over a hundred per cent.

It is not possible to estimate the full value of beaver-transplanting; however, it has been estimated that the cost of catching and transplanting each beaver is from \$5 to \$8, while each fussy little worker may be depended upon for valuable contributions toward erosion control, improved water facilities, and forage conditions.



(Left) Wild ducks rest on a natural pond in Pecos Grazing District, New Mexico.

(Below, left) Liberating beaver in Idaho streams.

(Below) Sage hens feeding in the yard of a Nevada rancher.



Rodent and Predatory Animal Control

The damage to soil and forage cover by rodents such as the ground squirrel, prairie dog, kangaroo rat, and pocket gopher is great. In cooperation with the Fish and Wildlife Service and other groups, the Grazing Service has undertaken rodent control work on approximately 10,000,000 acres of Federally owned land in grazing districts. Projects of this nature meet with the complete endorsement of stockmen and conservationists.

Coyote depredations are perhaps more serious than those of all other predators and contribute heavily to livestock, poultry, and game losses on the range. For example, it has been reported that on a ranch in Montrose County, Colorado, 40 lambs were killed in two weeks by a long, lame coyote.

Many other instances of the depredations of stock-killing bears, wolves, and mountain lions have been reported.

The Grazing Service has cooperated in plans to reduce the number of these natural enemies of livestock on its grazing territory.

Conclusion

Today, wildlife is offered the best chance for protection and propagation that it has had in many years. Protection is being given, improvements are under way, and the wildlife problem is receiving the support of the general public. It is the objective of the Grazing Service in this connection, through improved range forage conditions under proper use and management, to make possible wider and more natural distribution of wildlife. Stockmen, sportsmen, and Federal and State agencies are actually working toward the same objective.

Knowledge of the factors involved, cooperation of all interested groups, and public support will go a long way toward preserving the wildlife heritage of our country and at the same time will conserve the basic resources of soil, water, and forage for beneficial use.

* * *



GRAZING SERVICE REPRESENTATIVES ASSEMBLED AT DENVER, COLORADO

Front Row, Left to Right:

Frank C. Wright, Montana; R. E. Morgan, Montana; John Moschetti, J. E. N. Kavanagh, Washington, D. C.; Merle Drake, Idaho; D. F. Hudson, Wyoming; Leland O. Graham (assistant solicitor), Washington, D. C.; Neil F. Stull, California; C. F. Dierking, New Mexico.

Second Row, Left to Right:

Dan H. Hughes, Colorado; Frank O'Connell, Montana; Chas. F. Moore, Oregon; J. C. Cecil, Oregon; Wayne Gardner, Arizona; Presley Dorris, Nevada.

Third Row, Left to Right:

Kelso Musser, Colorado; T. G. Walter, Arizona; Gordon Griswold, Nevada; Utah; James L. Nielson, Utah.

Also attending the conference but not in the picture: R. H. Rutledge, Mexico; R. E. Hervey (reporter).



COLLAD JULY 1940, FOR THE FEDERAL RANGE CODE CONFERENCE

(clerk), Colorado; J. E. Stablein, Idaho; A. Rowley Babcock, Idaho; Wyoming; Harold J. Burback, Wyoming; J. H. Leech, Salt Lake City, Utah; (assistant solicitor), Washington, D. C.; A. D. Brownfield, New Mexico;

Colorado; John W. Hay, Jr., Wyoming; Fred Phillips, Oregon; Nic Monte, Nevada-California; L. R. Brooks, Nevada-California.

Nevada-California; J. Ray Painter, Arizona; C. N. Bagley, Utah; C. P. Seely,

Director of Grazing; Floyd W. Lee, New Mexico; J. E. Davenport, New

ESTIMATES OF BIG GAME IN FEDERAL GRAZING DISTRICTS

1939

State	White-tailed Deer	Mule Deer	Elk	Moose	Antelope	Rocky Mtn. Bighorn	Desert Bighorn	Javelina	Black Bear	Lion	Buffalo	Total
Arizona	100	1,200	50		80		400	320	150		200	2,500
California		8,000			5,000							13,000
Colorado		59,325	715		500							60,540
Idaho		12,000	25		7,000	100			100	20		19,245
Montana		5,155	415	90	4,230							9,890
Nevada		17,500			6,000		400					23,900
New Mexico	250	9,000	20		10,100		130		600		3	20,103
Oregon		21,500			17,050							38,550
Utah		55,780	143		1,145	175						57,243
Wyoming		10,200	900		27,000							38,100
TOTALS	350	199,660	2,268	90	78,105	275	930	320	850	20	203	283,071

WILDLIFE REFUGES AND RANGES IN WESTERN UNITED STATES*

<u>State</u>	<u>Refuge</u>	<u>County</u>	<u>Acreage</u>
Arizona	Apache National Wildlife Refuge	Apache	2,674
	Ash Creek " " "	Graham	980
	Boulder Canyon National Wildlife Refuge (see also Nevada)	Mohave	312,047
	Cabeza Prieta Game Range	Yuma and Pima	860,000
	Havasus Lake National Wildlife Refuge (see also California)**	Mohave and Yuma	21,560
	Imperial National Wildlife Refuge (see also California)**	Yuma	28,711
	Kofa Game Range	Yuma	660,000
	Salt River National Wildlife Refuge	Gila	21,120
California	Clear Lake National Wildlife Refuge	Modoc	25,300
	Farallon " " "	Marin	91
	Havasus Lake National Wildlife Refuge (see also Arizona)**	San Bernardino	15,014
	Imperial National Wildlife Refuge (see also Arizona)**	Imperial	18,089
	Lower Klamath National Wildlife Refuge (see also Oregon)	Siskiyou	20,480
	Sacramento National Wildlife Refuge	Glenn and Colusa	10,776
	Salton Sea " " "	Imperial	45,560
	Tule Lake " " "	Modoc and Siskiyou	37,342
Colorado	Kit Carson National Wildlife Refuge	Cheyenne	590
Idaho	Camas National Wildlife Refuge	Jefferson	10,535
	Deer Flat National Wildlife Refuge	Canyon	10,252
	Minidoka National Wildlife Refuge	Cassia, Blaine, Minidoka, and Power	25,332
	Snake River National Wildlife Refuge	Canyon	336
Montana	Benton Lake National Wildlife Refuge	Cascade and Chouteau	12,235
	Black Coulee " " "	Blaine	1,480
	Creedman " " "	Hill	3,360
	Fort Keogh " " "	Custer	56,954
	Fort Peck Game Range	Valley, Garfield, Petroleum, Fergus, Phillips and McCone	970,000
	Hailstone National Wildlife Refuge	Stillwater	2,300
	Halfbreed Lake National Wildlife Ref.	Stillwater	3,080
	Hewitt Lake National Wildlife Refuge	Phillips	1,680
	Bowdoin National Wildlife Refuge	Phillips	14,169
	Lake Mason National Wildlife Refuge	Musselshell	7,080
	Lake Thibadeau " " "	Hill	4,040
	Lamesteer National Wildlife Refuge	Wibaux	800
	Medicine Lake " " "	Roosevelt and Sheridan	32,878

<u>State</u>	<u>Refuge</u>	<u>County</u>	<u>Acreage</u>
Montana	National Bison Range	Sanders and Lake	18,541
(Cont'd)	Nine-Pipe National Wildlife Refuge	Lake	2,088
	Pablo National Wildlife Refuge	Lake	2,833
	Pishkun National Wildlife Refuge	Teton	7,715
	Red Rock Lakes National Wildlife Refuge	Beaverhead	40,121
	Willow Creek National Wildlife Refuge	Lewis and Clark	3,199
Nevada	Anaho Island National Wildlife Refuge	Washoe	248
	Boulder Canyon " " "	Clark	346,443
	(see also Arizona)		
	Desert Game Range	Clark and Lincoln	2,022,000
	Fallon National Wildlife Refuge	Churchill	17,902
	Railroad Valley National Wildlife Refuge	Nye	133,397
	Ruby Lake National Wildlife Refuge	Elko and White Pine	35,618
	Sheldon National Antelope Refuge and Range (see also Oregon)	Washoe and Humboldt	582,184
	Winnemucca National Wildlife Refuge	Pershing and Washoe	9,806
New Mexico	Bitter Lake National Wildlife Refuge	Chaves	21,963
	Bosque del Apache National Wildlife Ref.	Socorro	55,972
	Carlsbad National Wildlife Refuge	Eddy	18,080
	Rio Grande " " "	Sierra	73,228
Oregon	Cape Meares National Wildlife Refuge	Tillamook	139
	Cold Springs " " "	Umatilla	2,677
	Hart Mountain National Antelope Refuge	Lake	222,038
	Goat Island National Wildlife Refuge	Curry	21
	Lower Klamath " " "	Klamath	61,139
	(see also California)		
	Malheur National Wildlife Refuge	Harney	159,652
	McKay Creek National Wildlife Refuge	Umatilla	1,813
	Sheldon National Antelope Refuge and Range (see also Nevada)	Lake	627
	Three Arch Rocks National Wildlife Ref.	Tillamook	17
	Upper Klamath National Wildlife Refuge	Klamath	8,140
Utah	Bear River Migratory Bird Refuge	Box Elder	57,283
	Locomotive Springs National Wildlife Ref.	Box Elder	1,031
	Strawberry Valley " " "	Wasatch	14,080
Wyoming	Bamforth National Wildlife Refuge	Albany	1,166
	Evanston National Wildlife Refuge	Uinta	360
	Hutton Lake National Wildlife Refuge	Albany	1,441
	National Elk Refuge	Teton	20,577
	Pathfinder National Wildlife Refuge	Natrona and Carbon	45,944

*-Compiled by the Fish and Wildlife Service, Department of the Interior, August 1940

**--Pending

FEDERAL RANGE CODE REVISED

The Federal Range Code was originally approved August 31, 1938, to set forth rules for the regulation of grazing on Federally owned land in grazing districts, under the provisions of the Taylor Grazing Act. On July 15, 1940, at Denver, Colorado, 18 stockmen met with the Director of Grazing and members of his staff, and representatives of the Solicitor for the Department of the Interior, to consider changes in this code made necessary by the increasing number of new and different situations in connection with Federal grazing district administration.

These 18 stockmen--all members of district advisory boards--came as delegates from their respective regions to represent, equally, the cattle and the sheep interests. They came to speak for the over 20,000 users of the Federal range in western United States.

Prior to the Denver meeting, stockmen throughout the western range territory were asked to offer suggestions through their local advisory boards for revisions in or amendments to the Federal Range Code which they believed necessary for effective regulation of Federal grazing privileges. These recommendations were checked, tabulated according to the source of recommendation and the section of the code affected, and reproduced in booklet form for study and reference by the delegates at Denver. When these suggestions were charted, those sections of the code most in need of revision or amendment were easily evident.

One by one, the suggested changes were brought before the Denver group and discussed from the point of view of, for example, the Oregon sheepman and the New Mexico cattleman. Following a careful analysis, each recommendation was turned over to the committee designated, by lot, to work upon that particular section of the code. The report of this committee was again brought before the group and accepted changes fully justified.

A stenographic record was kept of the discussions--a record which clearly indicates the sound reasoning and serious thinking of the committee.

This meeting again demonstrated the value of the advisory board system in working out complex social and economic problems in connection with the use and management of publicly owned land and resources. Fair, able, aggressive, and well-posted on general range and livestock conditions, these men personified the cooperative

principles of the Taylor Act. Working diligently and with full realization of their responsibility to the stockmen and to the Nation, they rendered a public service of the highest caliber. It has been estimated that the combined range experience of this advisory group of 18 stockmen totaled approximately 450 years. The recommendations of these experienced men form the basis upon which Department of the Interior officials are already at work compiling salutary amendments to the Federal Range Code. As a result of these deliberations, the code will be a better document and one in keeping with conditions existing today.

The revised code will be published in a succeeding issue of The Grazing Bulletin.

* * *

OREGON COUNTY LANDS LEASED UNDER PIERCE ACT

Approximately 125,000 acres of tax-delinquent grazing land has been leased by the United States Government under the provisions of the Pierce Act of 1938 from Lake County, Oregon, to be incorporated into the conservation program of the Grazing Service in the Basin Grazing District in South-central Oregon.

This lease-agreement is the first of its kind under the Pierce Act. Negotiations are now under way covering a 750,000-acre State land lease in Oregon.

Lands leased under the Pierce Act will be administered under the rules governing the administration of grazing districts under the Taylor Grazing Act. Stockmen will pay to the Government the established grazing fee of five cents per animal unit month. The United States Treasury will, in turn, reimburse the lessor his proportionate share of the fees collected, determined by the ratio that his lands bear to the total acreage of public lands in the grazing districts.

In this way, the lessor will receive an income from the land and the land itself will benefit through Federal protection and orderly use made possible by the Taylor Grazing Act.

Approximately 20,000,000 acres of State, county, and privately owned grazing land in 54 Federal grazing districts are subject to the provisions of the Pierce Act.

FEUDIN' DAYS ARE OVER

(Note: This colorful account, by District Grazier Charles E. Seymour, Meeker, Colorado, of the death of cattlemen-sheepmen feuds, though somewhat exaggerated, nevertheless emphasizes a true spirit that has invaded the western livestock industry since the establishment of Federal grazing districts and local advisory boards under the Taylor Grazing Act.)

Once upon a time a cowman called a sheepman a so-and-so, or perhaps it was the sheepman who was disrespectful. The annals of time say not how long ago that happened, nor who started it, which doesn't matter. But that first slighting reference really started something. It started a habit, set up a precedent, laid the pattern and furnished the passwords for a couple of fraternal orders of suspicious "so-and-so's." These two brotherhoods--the sheepmen and the cowmen--engaged in some really bloody sacrificial gatherings. Sometimes the situation was indeed a sad one. But thus it went until well along into the twentieth century.

Then came the Taylor Grazing Act. There ensued an at-first-imperceptible, though very rapid, revolution of all such goings on. Lo' and behold the first thing we knew sheepmen and cowmen were sitting in the same room--and then side by side on advisory boards! Gradually they began to speak to one another and occasionally they "sipped from similar cups" with wondrous results!

After an election of the boards an occasional new face would show up. Cowman or sheepman, he came sworn to uphold the ancient traditions of his brotherhood. Imagine his embarrassment when, after sitting with the board a few days, he still found no "nest" for his individualistic or brotherhood notions. He found, instead, that he had fallen into a bunch of genial, cooperative, constructive-thinking fellows who were already at work on a big "community" job that meant a lot to everybody. "Sheep" and "cattle" were words used only as descriptive qualifications, entirely without derision. And so, another "hard-shell" melted and another real advisory boardman dug in to do his prescribed bit of good work for the livestock industry.

As an example of what we mean, a year or so ago an old-time sheepman was elected to an advisory board. The ancient traditions of his brotherhood were strongly ingrained. To him, a cowman--ugh! But his hard-shell cracked, or melted, as other hard-shells had done before him, and that sheepman later expressed his new viewpoint in a letter to a cattleman who was not reelected to the board, somewhat as follows:

"Dear Tom: (Not his name)

"It is with regret that I learn you are not returned to the new Taylor board--the reason must be better known to those who did the voting. I regarded you as the fairest cowman we had on the board. Could this be the reason for your defeat? If so, the minds of the voters are not running in the right direction. Not until the minds of the voters disregard classes of stock to be grazed and work for the welfare of all will the administration of the Taylor Act be a success.

"I am glad of the acquaintance we formed while on the board together and wish you every success."

* * *

SOME UNUSUAL RANGE PLANTS

The vagaries of Nature often cause stockmen of the Southwest to do things in reverse order. For instance, many a homesteader in this area "mines" for his wood since the roots of the mesquite plant furnish excellent fuel. Mesquite beans, not edible by man, are relished by livestock.

Tourists traveling for the first time through grazing districts in New Mexico and Arizona may think it unusual to see a herd of cows following a man on horseback. True, the usual way is for the man on horseback to drive the cows before him, but the cowboy who is being pursued by the cows probably has a kerosene torch strapped to his back and his saddle bags filled with pellets of cottonseed cake. He stops near a cholla bush (cane cactus) and burns its spines so that the cattle can chew the tender shoots. A few pellets

of cottonseed cake are scattered around the bush to serve as an appetizer for the cattle whose appetites thus whetted cause them to fill up on the de-spined cactus. The cowboy then moves on to another cholla to repeat the process, with part of the herd still at his heels.

Cholla is a hardy, drought-resistant desert plant that comes in mighty handy when the rains do not come and herbaceous plants fail to grow, or dry up and blow away.

Another plant that often saves animals from starvation is Sacueista (Sak-a-weesta). This is a coarse-leaved perennial with a stout, nearly naked stem at the end of which is produced a delicate bloom which is very palatable to livestock. The leaves, it is said, were used in former times by the Indians in weaving baskets and mats. When grass and other vegetable growth fail these leaves serve as a roughage and, along with oil cake or grain, will pull cattle through. Sacueista is sometimes called Beargrass.

Occasionally a cow is seen standing on her hind legs reaching for a cluster of colorful blooms at the end of a long, straight stalk. The luscious morsel is the fruit of the broadleaved yucca or "dagger" (one species is called soapweed). The leaves of this plant are tough and fibrous but in a pinch they will keep a cow alive until better feed is available. At one time the leaves were used extensively by various tribes of Indians, notably the Apaches, in their basketry. More recently, particularly in 1917 during the World War, quite an area of yucca-land in New Mexico was harvested and the leaves manufactured into a fiber that was a fair substitute for hemp.

Probably the most dependable plant in the Southwest for emergency cattle rations is Sotol. Sotol is a member of the yucca family, found mainly in southern Arizona, New Mexico, and Northwest Texas. This hardy plant is often referred to as the cowman's insurance against cattle starvation.

Sotol grows on the plains and low hills. It produces numerous strap-shaped, spiny-margined leaves around thick, short stems with small, white flowers borne aloft on tall, narrow panicles. It is not unusual to see several half-starved cattle following a man with an axe as he walks from plant to plant splitting open the heads that form at the base of the leaves. This head is formed somewhat on the arrangement of an artichoke and when split open and thus made available is relished by livestock. Some practical range men, by observing how much of the Sotol has been utilized during a certain season, obtain a reliable indicator of overuse or drought on the range.

The peculiar, recurved, hooked spines of Sotol leaves cause some hazard to sheep. During spring storms this hazard is aggravated because it is then that the unshorn sheep seeks shelter near the dense leaves and her wet wool becomes entangled in the octopus-like tentacles of the shrub. Some sheep losses have been noted due to this undeclared struggle between plant and animal.

In this struggle between plant and animal, the Sotol plant has won. The ewe, her wool entangled in the hooked spines of the plant, has been unable to free herself and can only await the help of an attendant.



GRAZING DISTRICTS NAMED

A growing desire on the part of Grazing Service personnel and livestock operators to be able to refer to Federal grazing districts by names which typify the areas, rather than only by number, culminated in a request by the Director of Grazing for names which might be used.

Many suggestions were received, among them such picturesque and typically western names as Lostriver (Idaho), Tensleep (Wyoming), and Searchlight (Nevada). To avoid confusion, names already given to national parks and monuments, national forests, and Indian reservations were not considered. After careful consideration of all the suggestions received the following characteristic names were selected, each of which carries a story of some phase of early-day life in the range area:

Arizona Grazing Districts

- No. 1 -- Hurricane District
- No. 2 -- Kingman District
- No. 3 -- Maricopa District
- No. 4 -- Safford District

California Grazing Districts

- No. 1 -- Mojave District
- No. 2 -- Honey Lake District

Nevada Grazing Districts

- No. 1 -- Elko District
- No. 2 -- Pyramid District
- No. 3 -- Virginia City District
- No. 4 -- Ely District
- No. 5 -- Searchlight District

Oregon Grazing Districts

- No. 1 -- Bonanza District
- No. 2 -- Basin District
- No. 3 -- Vale District
- No. 4 -- Jordan District
- No. 5 -- Crooked River District
- No. 6 -- Baker District
- No. 7 -- Echo District

Utah Grazing Districts

- No. 1 -- Promontory District
- No. 2 -- Bonneville District
- No. 3 -- Pahvant District
- No. 4 -- Virgin District
- No. 5 -- Escalante District
- No. 6 -- Monticello District
- No. 7 -- San Rafael District
- No. 8 -- Duchesne District
- No. 9 -- Grand District

Wyoming Grazing Districts

- No. 1 -- Tensleep District
- No. 2 -- Windriver District
- No. 3 -- Divide District
- No. 4 -- Greenriver District
- No. 5 -- Sublette District

Colorado Grazing Districts

- No. 1 -- Meeker District
- No. 2 -- Summit District
- No. 3 -- Ouray District
- No. 4 -- Dolores District
- No. 5 -- Royal Gorge District
- No. 6 -- Yampa District

Idaho Grazing Districts

- No. 1 -- Owyhee District
- No. 2 -- Twin Falls District
- No. 3 -- Lostriver District
- No. 4 -- Lemhi District

Montana Grazing Districts

- No. 1 -- Malta District
- No. 2 -- Musselshell District
- No. 3 -- Mizpah District
- No. 4 -- Bridger District
- No. 5 -- Butte District
- No. 6 -- Roundup District

New Mexico Grazing Districts

- No. 2-A -- Rio Puerco District
- No. 2-B -- Magdalena District
- No. 3 -- Border District
- No. 4 -- Tularosa District
- No. 5 -- Mesa District
- No. 6 -- Pecos District
- No. 7 -- Chaco District

NEW STOCKMAN'S GROUP ORGANIZED

Gordon Griswold of Elko, Nevada, has been elected President of the National Advisory Board Council to steer that newly organized, independent body of western stockmen through its initial year.

One of the primary objectives of this group, which is composed of livestock operators from all over western United States, is to coordinate activities of the livestock industry for quick and positive cooperative action in connection with National defense.

Other officers elected to serve with Mr. Griswold are:
A. D. Brownfield, Florida, New Mexico, Vice President
Dan Hughes, Montrose, Colorado, Vice President
Merle Drake, Challis, Idaho, Vice President
C. N. Bagley, Salt Lake City, Utah, Secretary-Treasurer

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A SHEEP HERDER BACK ON THE JOB

A district grazer and his assistant recently started out on what was expected to be a routine range inspection trip. They met a sheep herder on the range and after a visit with him the trip took on greater significance. The grazer describes the incident as follows:

"We asked the herder how his sheep were doing, and he answered, 'Fine.' We talked a few minutes about the range, the sheep and his pal, the Collie sheep dog. He said, 'You know, I quit herding sheep some ten years ago because you could not take care of them then--you just ran them around the country trying to get some feed and water before someone else beat you to it. You had to stay out in front most of the time for fear you would mix with someone else coming across country. I can't handle stock that way, so I quit. But now, since the grazing people took this range over, all this has changed. You know where you are going, you know you will have feed and water when you get there and you know your range won't be stolen from you. They are watching it too; they have several men out who do nothing else. Only a few days ago one was over to the camp south of me and inquired all about the stock, the feed, and the water, left some grazing booklets, and went on.' The herder then asked what brought me to this part of the country. I told him who I was and gave him a couple of bulletins. Then I nailed up a fire sign on the reservoir fence and walked back to the car."

FIRE-PREVENTION PAYS HIGH DIVIDENDS

Range fires are impartial in their destruction of life and property. Dry weather and lush, early-season growth of grass, and tumble weeds, have contributed this year to acute fire hazards on the ranges of Oregon, Idaho, Nevada, and other Federal range States. Many fires are due to carelessness. Once started on dry range a fire becomes Public Enemy No. 1. A single fire may reduce to ashes the forage needed to support thousands of cattle and sheep. Every acre of grass that goes up in smoke represents the loss of so much lamb, beef, or wool. The best attack on this hazard is by prevention and presuppression.

The Grazing Service is using every possible device to prevent range fires and to make the public "fire conscious." One such device is an appeal to the motorists on the ribbons of highways traversing many western grazing districts. A lighted match or cigarette, tossed from the window of a speeding automobile, may be the spark that ignites a range fire that causes great damage to life and property. To reduce the number of fires that are started along Idaho's highways, the Grazing Service, in cooperation with the Idaho State Highway Department, has painted the words, "PREVENT RANGE FIRES," at strategic points on highways that criss-cross the southern part of the State. The words are five feet high, spaced 50 feet apart, and placed on an incline wherever possible. Range fires along Idaho highways showed a 40 per cent reduction during the month of July. At a cost of \$2.85 each sign, half of which is borne by the State of Idaho, the idea seems to be paying generous dividends.

In cooperation with State Highway Department officials, the Grazing Service is painting fire-caution signs like these on principal highways throughout Idaho and other western States.



Fire Suppression Saves You Money

The 90 Civilian Conservation Corps camps assigned to the Grazing Service form the nucleus of its range fire-protection force. Camps are located in all grazing districts of the West and at or near these camps is housed the equipment needed to combat range fires. CCC enrollees from these camps, selectively trained under competent leadership, usually are the first to arrive on the scene when fire alarms are dispatched.

Twenty-nine grass and timber fires were extinguished in four Nevada and California grazing districts by CCC enrollees in June. These fires occurred on public and private lands in scattered localities, burning a total of 69,945 acres of valuable forage. Through the effective work of Grazing Service CCC crews cooperating with other agencies, approximately 329,000 acres of range and timber lands were saved.

What does this mean in terms of range feed? in terms of dollars and cents to the stockman? in terms of food to the consuming public?

Approximately 329,000 acres of average range in northern Nevada and northwestern California will support 32,900 range lambs and their mothers for a normal grazing period of five months. Conservatively estimating that each lamb gains 40 pounds during this period, the forage on this 329,000-acre area will have been converted into 1,316,000 pounds of lamb-on-the-hoof. If the grower gets eight cents a pound for lamb this year--and that's a conservative figure--the year's forage on that area was worth \$105,280 in cash returns to the livestock industry, in addition to the value of the forage consumed by the ewes on that same range.

Now, what did it cost to save that range from destruction by fire?

In combating the 29 fires, 1,844 man-days of enrollee labor was expended. That is equivalent to 60 men for one month or one man for five years. The Director of the Civilian Conservation Corps, Mr. J. J. McEntee, has computed the yearly cost to the Government for food, clothing, pay, and overhead, per enrollee (based on actual records) at \$1,000. Thus, in round figures, the saving of 329,000 acres of summer range costs the Government \$5,000. The net return in usable consumers goods was, again in round numbers, \$100,000. Putting it another way--188,000 Americans, through the efforts of these CCC enrollees, were not deprived of their customary yearly ration of seven pounds of lamb!

DEPARTMENTAL ORDERS DURING JUNE AND JULY AFFECTING OVER
1,000,000 ACRES OF PUBLIC LAND IN GRAZING DISTRICTS

Order	State	Grazing District Number and Name	Departmental Approval	Acreage Involved
Revoking stock-driveway withdrawals	Idaho	No. 3, Lostriver	June 4, 1940	106,308
Revoking certain Reclamation withdrawals which had been made in connection with the Colorado River Storage Project	Nevada	No. 5, Searchlight	June 6, 1940	10,800
Revoking stock-driveway withdrawal	New Mexico	No. 2-A, Rio Puerco	June 7, 1940	3,434.27
Withdrawing land for Klamath Project, admin- istered by Bureau of Reclamation	Oregon	No. 1, Bonanza	June 18, 1940	400
Revoking stock-driveway withdrawals	California	No. 2, Honey Lake	June 19, 1940	31,816.11
Withdrawing land for air-navigation-site purposes	Wyoming	No. 3, Divide No. 4, Greenriver	June 21, 1940	190
Withdrawing land for Kendrick Project, admin- istered by Bureau of Reclamation	Wyoming	No. 3, Divide	June 25, 1940	8,800
Revoking stock-driveway withdrawals	Colorado	No. 3, Ouray	July 1, 1940	13,643.84
Adding land to grazing district	Oregon	No. 6, Baker	July 15, 1940	2,500
Revoking Indian withdrawal (to be effective in 60 days)	Arizona	No. 1, Hurricane	July 16, 1940	759,000
Adding land to Colorado Grazing District No. 3 by transfer from Colorado Grazing District No. 4	Colorado	No. 3, Ouray	July 31, 1940	72,115

ROYAL GORGE GRAZING DISTRICT

Establishment of Royal Gorge Grazing District in Colorado brings the total number of Federal Grazing Districts to 54 for the ten western States and to six for the State of Colorado.

The new district, officially designated as Colorado Grazing District No. 5, comprises approximately 500,000 acres of public land in Teller, Park, Fremont, and Custer Counties near the Continental Divide. Included within its boundaries is Cripple Creek, the famous gold mining camp discovered in the early 1890's by Winfield Scott Stratton.

Crossing the district between Canon City and Salida is the famous Royal Gorge of the Arkansas River for which the district was named. The generally rugged surface of the land is used primarily as cattle range in connection with approximately 625,000 acres of privately controlled land in the district.

The creation of this new district followed the recommendation of a group of stockmen, representing the range users of the area, that the Federal land be included in the general range conservation program of the Grazing Service under the terms of the Taylor Grazing Act.

* * *

NEED FOR CONSERVATION RECOGNIZED BY THE FATHER OF OUR COUNTRY

"We ruin the lands that are already cleared and either cut down more wood, if we have it, or emigrate into the western country....A half, a third, or even a fourth of what land we mangle, well-wrought and properly dressed, would produce more than the whole under our system of management; yet such is the force of habit, that we cannot depart from it." --George Washington.

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